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Date Processed by STIC: 8/11/2003

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RAW SEQUENCE LISTING DATE: 08/11/2003
PATENT APPLICATION: US/10/612,466 TIME: 13:38:59

Input Set : A:\1625seq.001
Output Set: N:\CRF4\08112003\J612466.raw

62 Asn Gly Tyr Met Arg Ile Thr Asn Glu Asn Phe Val Asp Ala Tyr Glu		
63 95 100 105		
65 aac tcc aac tcc act gag ttt gta agc ctg gcc agc aag gtg aag gac	388	
66 Asn Ser Asn Ser Thr Glu Phe Val Ser Leu Ala Ser Lys Val Lys Asp		
67 110 115 120		
69 gcg ctg aag ctg ctg tac agc gga gtc cca ttc ctg ggc ccc tac cac	436	
70 Ala Leu Lys Leu Leu Tyr Ser Gly Val Pro Phe Leu Gly Pro Tyr His		
71 125 130 135		
73 aag gag tcg gct gtg acg gcc ttc agc gag ggc agc gtc atc gcc tac	484	
74 Lys Glu Ser Ala Val Thr Ala Phe Ser Glu Gly Ser Val Ile Ala Tyr		
75 140 145 150		
77 tac tgg tct gag ttc agc atc ccg cag cac ctg gtg gag gag gcc gag	532	
78 Tyr Trp Ser Glu Phe Ser Ile Pro Gln His Leu Val Glu Ala Glu		
79 155 160 165 170		
81 cgc gtc atg gcc gag gag cgc gta gtc atg ctg ccc cgg cgg cgc	580	
82 Arg Val Met Ala Glu Glu Arg Val Val Met Leu Pro Pro Arg Ala Arg		
83 175 180 185		
85 tcc ctg aag tcc ttt gtg gtc acc tca gtg gtg gtc ttc ccc acg gac	628	
86 Ser Leu Lys Ser Phe Val Thr Ser Val Val Ala Phe Pro Thr Asp		
87 190 195 200		
89 tcc aaa aca gta cag agg acc cag gag aac acc agc tgc agc ttc ggc ctg	676	
90 Ser Lys Thr Val Gln Arg Thr Gln Asp Asn Ser Cys Ser Phe Gly Leu		
91 205 210 215		
93 cac gcc cgc ggt gtg gag ctg atg cgc acc acc acc ggc ttc cct	724	
94 His Ala Arg Gly Val Glu Leu Met Arg Phe Thr Thr Pro Gly Phe Pro		
95 220 225 230		
97 gac agc ccc tac ccc gct cat gcc cgc tgc cag tgg gcc ctg cgg ggg	772	
98 Asp Ser Pro Tyr Pro Ala His Ala Arg Cys Gln Trp Ala Leu Arg Gly		
99 235 240 245 250		
101 gac gcc gac tca gtg ctg agc ctc acc ttc cgc agc ttt gac ctt gcg	820	
102 Asp Ala Asp Ser Val Leu Ser Leu Thr Phe Arg Ser Phe Asp Leu Ala		
103 255 260 265		
105 tcc tgc gac gag cgc ggc agc gac ctg gtg acg gtg tac aac acc ctg	868	
106 Ser Cys Asp Glu Arg Gly Ser Leu Val Thr Val Tyr Asp Thr Leu		
107 270 275 280		
109 agc ccc atg gag ccc cac gcc ctg gtg cag ttg tgt ggc acc tac cct	916	
110 Ser Pro Met Glu Pro His Ala Leu Val Gln Leu Cys Gly Thr Tyr Pro		
111 285 290 295		
113 ccc tcc tac aac ctg acc ttc cac tcc tcc cag aac gtc ctg ctc atc	964	
114 Pro Ser Tyr Asn Leu Thr Phe His Ser Ser Gln Asn Val Leu Ile		
115 300 310		
117 aca ctg ata acc aac act gag cgg cgg cat ccc ggc ttt gag gcc acc	1012	
118 Thr Leu Ile Thr Asn Thr Glu Arg Arg His Pro Gly Phe Glu Ala Thr		
119 315 320 325 330		
121 ttc ttc cag ctg cct agg atg agc agc tgc tgg gga ggc cgc tta cgt aaa	1060	
122 Phe Phe Gln Leu Pro Arg Met Ser Ser Cys Gly Gly Arg Leu Arg Lys		
123 335 340 345		
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126 Ala Gln Gly Thr Phe Asn Ser Pro Tyr Tyr Pro Gly His Tyr Pro Pro		

Input Set : A:\1625.seq.001
Output Set: N:\CRF4\08112003\J612466.raw

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130	Asn Ile Asp	Cys Thr Trp Asn Ile Glu Val Pro Asn Asn Gln His Val		
131	365	370	375	
133	aag gtg agc ttc aac ttc ttc tac ctg ctg gag ccc ggc gtg cct gcg			1204
134	Lys Val Ser Phe Lys Phe Tyr Leu Leu Glu Pro Gly Val Pro Ala			
135	380	385	390	
137	ggc acc tgc ccc aac gag tac gtg gag atc aat ggg gag aac tac tgc			1252
138	Gly Thr Cys Pro Lys Asp Tyr Val Glu Ile Asn Gly Glu Lys Tyr Cys			
139	395	400	405	410
141	ggg gag agg tcc cac ttc gtc gtc acc agg sac acc aac aag atc aca			1300
142	Gly Lys Arg Ser Gln Phe Val Val Thr Ser Asn Ser Asn Lys Ile Thr			
143	415	420	425	
145	gtt cgc ttc cac tca gat gag tcc tac acc gag acc ggc ttc tta gct			1348
146	Val Arg Phe His Ser Asp Gln Ser Tyr Thr Asp Thr Gly Phe Leu Ala			
147	430	435	440	
149	gaa tac tcc tcc tac gag tcc act gat gag ccc tgc ccg ggg cag ttc acg			1396
150	Glu Tyr Leu Ser Tyr Asp Ser Ser Asp Pro Cys Pro Gly Gln Phe Thr			
151	445	450	455	
153	tgc cgc acc ggg cgg tgt atc cgg aag gag ctg cgc tgt gat ggc tgg			1444
154	Cys Arg Thr Gly Arg Cys Ile Arg Lys Glu Leu Arg Cys Asp Gly Trp			
155	460	465	470	
157	gcc gac tgc acc gag cac acc gat gag ctc aac tgc agt tgc gag gcc			1492
158	Ala Asp Cys Thr Asp His Ser Asp Glu Leu Asn Cys Ser Cys Asp Ala			
159	475	480	485	490
161	ggc cac cag ttc acg tgc aag aac aag ttc tgc aag ccc ctc ttc tgg			1540
162	Gly His Gln Phe Thr Cys Lys Asn Lys Phe Cys Lys Pro Leu Phe Trp			
163	495	500	505	
165	gtc tgc gca agt gtg aac gag tgc gga gac aac agc gac gag cag ggg			1588
166	Val Cys Asp Ser Val Asn Asp Cys Gly Asp Asn Ser Asp Glu Gln Gly			
167	510	515	520	
169	tgc agt tgt ccc gcc cag acc ttc agg tgt tcc aat ggg aag tgc ctc			1636
170	Cys Ser Cys Pro Ala Gln Thr Phe Arg Cys Ser Asn Gly Lys Cys Leu			
171	525	530	535	
173	tcg aac aag cag cag tgc aat ggg aag gag gac tgc tgt ggg gac ggg tcc			1684
174	Ser Lys Ser Gln Gln Cys Asn Gly Lys Asp Asp Cys Gly Asp Gly Ser			
175	540	545	550	
177	gac gag gcc tcc tgc ccc aag gtg aac gtc act tgt acc aas cac			1732
178	Gly Ala Ser Cys Pro Lys Val Asn Val Val Thr Cys Thr Lys His			
179	555	560	565	570
181	acc tac cgc tgc ctc aat ggg ctc tgc ttg agc aag ggc aac cct gag			1780
182	Thr Tyr Arg Cys Leu Asn Gly Leu Cys Leu Ser Lys Gly Asn Pro Glu			
183	575	580	585	
185	tgt gac ggg aag gag gac tgt agc gac ggc tca gat gag aag gac tgc			1828
186	Cys Asp Gly Lys Glu Asp Cys Ser Asp Gly Ser Asp Glu Lys Asp Cys			
187	590	595	600	
189	gac tgt ggg ctg cgg tca ttc acc aca cag gtc gct cgt gtt gtt ggg ggc			1876
190	Asp Cys Gly Leu Arg Ser Phe Thr Arg Gln Ala Arg Val Val Gly Gly			
191	605	610	615	

Input Set : A:\1625seq.001
Output Set: N:\CRF4\08112003\J612466.raw

193 acg gat gcg gat gag ggc gag tgg ccc tgg cag tga agc ctg cat gct 1924
194 Thr Asp Ala Asp Glu Gly Glu Trp Pro Trp Gln Val Ser Leu His Ala
620 630
195 620
197 ctg ggc cag ggc cac atc tgg ggt gtc tcc atc tt ccc aac tgg 1972
198 Leu Gly Gln Gly His Ile Cys Gly Ala Ser Leu Ile Ser Pro Asn Trp
640 645 650
199 635
201 ctg gtc tct gcc gca cac tgc tac atc gat gac aga gga ttc agg tac 2020
202 Leu Val Ser Ala Ala His Cys Tyr Ile Asp Asp Arg Gly Phe Arg Tyr
655 660 665
203
205 tca gac ccc acc cag tgg acg gcc ttc ctg ggc ttg cac gac cag agc 2068
206 Ser Asp Pro Thr Gln Trp Thr Ala Phe Leu Gly Leu His Asp Gln Ser
670 675 680
207
209 cag cgc acc ggc cct ggg gtg cag gag cgc agg ctc aag cgc atc atc 2116
210 Gln Arg Ser Ala Pro Gly Val Glu Arg Arg Leu Lys Arg Ile Ile
685 690 695
211
213 tcc cac ccc ttc atc aat gac ttc acc ttc gac tat gac atc gcg ctg 2164
214 Ser His Pro Phe Phe Asn Asp Phe Thr Phe Asp Tyr Asp Ile Ala Leu
700 705
215 700
217 ctg gag ctg gag aaa ccg gca gag tac agc tcc atg gtg cgg ccc atc 2212
218 Leu Glu Leu Glu Lys Pro Ala Glu Tyr Ser Ser Met Val Arg Pro Ile
715 720 725 730
219 715
221 tgc ctg ccc gag gcc tcc cat gtc ttc cct gcc ggc sag gcc atc tgg 2260
222 Cys Leu Pro Asp Ala Ser His Val Phe Pro Ala Gly Lys Ala Ile Trp
735 740 745
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225 gtc acg ggc tgg gga cac acc cac gat tat gga ggc act ggc ggc ctg atc 2308
226 Val Thr Gly Trp Gln His Thr Gln Tyr Gly Thr Gly Ala Leu Ile
750 755 760
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229 ctg cca aag ggt gag atc cgc gtc atc aac cac acc acc tgc gag aac 2356
230 Leu Gln Lys Gly Glu Ile Arg Val Ile Asn Gln Thr Cys Glu Asn
765 770 775
231
233 ctg ctc cgg cac gag atc acc ccc cgc atg tgc tgg ggc ttc ctc 2404
234 Leu Leu Pro Gln Gln Ile Thr Pro Arg Met Met Cys Val Phe Leu
780 785
235 780
237 agc ggc ggc gtg gac tcc tgc cag ggt gat tcc ggg gga ccc ctg tcc 2452
238 Ser Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Ser
795 800 805 810
239 795
241 agc gtg gag gcg gat ggg cgg atc ttc cag gcc ggt gtg gtg agc tgg 2500
242 Ser Val Glu Ala Asp Gly Arg Ile Phe Gln Ala Gly Val Val Trp
815 820 825
243
245 gga gac ggc tgc gct cag agg aac aag cca ggc gtg tac aca agg ctc 2548
246 Gly Asp Gly Cys Ala Gln Arg Asn Lys Pro Gly Val Tyr Thr Arg Leu
830 835 840
247
249 ctc ctg ttt cgg gac tgg atc aaa gag aac act ggg gta tt gggggccccgggg 2599
250 Pro Leu Phe Arg Asp Trp Ile Lys Glu Asn Thr Gly Val
845 850 855
251
253 ccacccaaat gtgtcacacct gcggggccac ccatacgccca ccccaagtgtg caccgcctgca 2659
254 ggctggagac tggaccgcgtg actgcaccag cggcccccaga acatcacatg tgaaatccat 2719
255 ctccagggt ccaaatactgc ctgaaaaacc ttcgcgttcc tcaagcctcca aagtggagct 2779
256 gggaggtaga agggaggac actgggttgtt ctactgaccc aactgggggc aaaggtttga 2839

Input Set : A:\1625seq.001
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259 ggctggccggta tcgggctgtg gggggcccttg gggcacgcgc ttgaggaagc ccaggctcg 3019
260 aggacccctgg aaacacagac ggtctgagac tgaaatgtt ttaccagtc ccagggtgg 3079
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262 aaaaaaaaaa 3147

264 <210> SEQ_ID_NO: 2
265 <211> LENGTH: 855
266 <212> TYPE: PRT
267 <213> ORGANISM: Homo Sapien
269 <400> SEQUENCE: 2
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271 1 5 10 15
272 Gly Ala Gly Leu Lys Tyr Asn Ser Arg His Glu Lys Val Asn Gly Leu
273 20 25 30
274 Glu Glu Gly Val Phe Leu Pro Val Asn Asn Val Lys Lys Val Glu
275 35 40 45
276 Lys His Gly Pro Gly Arg Trp Val Val Leu Ala Ala Val Leu Ile Gly
277 50 55 60
278 Leu Leu Leu Val Leu Leu Gly Ile Gly Phe Leu Val Trp His Leu Gln
279 65 70 75 80
280 Tyr Arg Asp Val Arg Val Gln Lys Val Phe Asn Gly Tyr Met Arg Ile
281 85 90 95
282 Thr Asn Glu Asn Phe Val Asp Ala Tyr Glu Asn Ser Asn Ser Thr Glu
283 100 105 110
284 Phe Val Ser Leu Ala Ser Lys Val Lys Asp Ala Leu Lys Leu Leu Tyr
285 115 120 125
286 Ser Gly Val Pro Phe Leu Gly Pro Tyr His Lys Glu Ser Ala Val Thr
287 130 135 140
288 Ala Phe Ser Gly Ser Val Ile Ala Tyr Tyr Trp Ser Glu Phe Ser
289 145 150 155 160
290 Ile Pro Gln His Leu Val Glu Ala Glu Arg Val Met Ala Glu Glu
291 165 170 175
292 Arg Val Val Met Leu Pro Pro Arg Ala Arg Ser Leu Lys Ser Phe Val
293 180 185 190
294 Val Thr Ser Val Val Ala Phe Pro Thr Asp Ser Lys Thr Val Gln Arg
295 195 200 205
296 Thr Gln Asp Asn Ser Cys Ser Phe Gly Leu His Ala Arg Gly Val Glu
297 210 215 220
298 Leu Met Arg Phe Thr Thr Pro Gly Phe Pro Asp Ser Pro Tyr Pro Ala
299 225 230 235 240
300 His Ala Arg Cys Gln Trp Ala Leu Arg Gly Asp Ala Asp Ser Val Leu
301 245 250 255
302 Ser Leu Thr Phe Arg Ser Phe Asp Leu Ala Ser Cys Asp Glu Arg Gly
303 260 265 270
304 Ser Asp Leu Val Thr Val Tyr Asn Thr Leu Ser Pro Met Glu Pro His
305 275 280 285
306 Ala Leu Val Gln Leu Cys Gly Thr Tyr Pro Pro Ser Tyr Asn Leu Thr
307 290 295 300

10/12/46

<210> SEQ ID NO 21
<211> LENGTH: 103
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence which response is the valid one?
(213) Homo Sapien
<220> FEATURE:
<223> OTHER INFORMATION: : If it is Artificial Sequence include (220-223)
<400> SEQUENCE: 21
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Arg Pro Pro Leu Ala Leu Leu Glu Leu Ser Ser Arg Val Glu Pro Ser
20 25 30
Pro Ser Ala Leu Pro Ile Cys Leu His Pro Ala Gly Ile Pro Pro Gly
35 40 45
Ala Ser Cys Trp Val Leu Gly Trp Lys Glu Pro Gln Asp Arg Val Pro
50 55 60
Val Ala Ala Ala Val Ser Ile Leu Thr Gln Arg Ile Cys Asp Cys Leu
65 70 75 80
Tyr Gln Gly Ile Leu Pro Pro Gly Thr Leu Cys Val Leu Tyr Ala Glu
85 90 95
Gly Gln Glu Asn Arg Cys Glu
100

<210> SEQ ID NO 22
<211> LENGTH: 37
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence same error
(213) Homo Sapien
<220> FEATURE:
<223> OTHER INFORMATION: :
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1 5 10 15
Leu Ala Gly Ile Arg Asp Phe Pro Ser Gly Cys Leu Arg Pro Arg Ala
20 25 30
Phe Phe Pro Leu Gln
35